

GENERAL NOTES

1. The scope of work for this project includes constructing slope stabilization and slope protection at the three project locations. Only one location shall be constructed at a time. Work at next location shall not start unless directed by the Engineer.
2. The Contractor is reminded of the requirements of Subsection 105.16 – Subcontracts, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Noncompliance with this Subsection may be grounds for rejection of bid.
3. The Contractor’s attention is directed to the following sections of the Special Provisions: Subsection 107.06 – Contractor Duty Regarding Public Convenience; Subsection 104.11 – Utilities and Services; and Section 645 – Work Zone Traffic Control.
4. The Contractor shall follow all work hours, conditions and other restrictions as specified in the approved noise variance.
5. At the end of each day’s work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
6. The existence and location of underground utilities, manholes, monuments, and concrete pavements, and other structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall make an independent check on the ground by probing and/or with the various utility companies and governmental agencies to verify the exact locations and depths of the existing utilities and obstructions. The Contractor shall exercise proper care in excavating in the area. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
7. The Contractor shall notify the Engineer in writing, three (3) weeks prior to starting his operations.
8. Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This includes all flows entering and leaving the project. This work shall be considered incidental to various contract items.
9. The contractor shall provide for access to and from all existing side streets at all times.
10. Contractor shall properly dispose of all removed material at no cost to the State.
11. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
12. After the project is completed, the Contractor shall restore grades and groundcover in the project limits to a condition equal or better than existing before such damage or injury was done.
13. All existing utilities, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans as abandoned. Any damage to the existing utilities shall be repaired and paid for by the Contractor.
14. Unless relocation is called for on the plans, existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required for the Contractor’s convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor’s expense only with the prior written approval of the affected utility company.
15. The Contractor shall field verify the operational status of all existing utilities to be removed or abandoned in place. Any discrepancy shall be brought to the attention of the Engineer.
16. The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.
17. Construction outside the Hawaii Department of Transportation (HDOT) right-of-way are subject to permission of the affected owner as verified by HDOT.
18. All construction work shall be done in accordance with the Standards and Specifications of the Hawaii Department of Transportation as amended.

19. The existing improvements on the premises and in adjacent area that are not to be removed shall be preserved and protected. Any and all damages resulting from the Contractor’s construction operations shall be replaced and repaired to original condition, to the satisfaction of the owner.
20. For benchmark, see sheet C–2.
21. All catch basins shall be marked as directed by the Engineer.
22. All coordinates and azimuths for ”Construction Benchmark” are referred to Government Triangulation Station ”PUU OKOHOLA” and elevations are assumed.
23. Elevations shown on these plans are referenced to Mean Sea Level (MSL).
24. All steel plates shall be flat and have a non–skid surface and shall emit no objectionable noise when crossed. Maintain non–skid surface plate.

REFERENCE OF SURVEY MONUMENTS

Standard Highway monument, C&C monuments and State survey monuments (brass disk)

1. If any monument will be disturbed or removed, contact Daniel Sasaki at Oahu District Highways Division Office at 831–6807.
2. Provide one month notice before monument is disturbed or removed.
3. State highway monuments, within project limits shall be referenced by a Hawaii licensed land surveyor prior to the their removal, and during resetting of the monument.
4. Referenced information shall be provided before the monument is disturbed or removed. All referenced data shall be delivered to Daniel Sasaki at Oahu District Highways Division Office.
5. If any survey monument is disturbed or removed, it will be at the cost of the contractor to reset the survey monument.

ARCHAEOLOGICAL NOTES

1. Pursuant to Chapter 6e, HRS, in the event any artifacts or human remains are uncovered during construction operations, the contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources–Historic Preservation Division (692–8015).
2. The Contractor shall notify the Engineer and contact the State Historic Preservation Division, Maui Section at (808) 243–1285 upon uncovering any potential historical artifacts or items of archaeological significance. Work shall stop immediately in the vicinity of the find, and the area shall be cordoned off.

HAWAII ONE CALL CENTER

Prior to excavation, Contractor is required by HRS 269e to contact the Hawaii One Call Center at phone number 866–668–4001.

ORIGINAL PLAN	SURVEY PLANNED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
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No.		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36C-01-10	2020	3	35

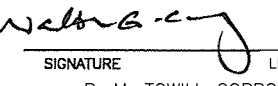
WALTER G. C. CHONG

LICENSED PROFESSIONAL ENGINEERS

No. 6882-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. OBSERVATION OF CONSTRUCTION IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

SIGNATURE:  LIC. EXPIRATION: 4/30/22

R. M. TOWILL CORPORATION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GENERAL NOTES

HANA HIGHWAY ROCKFALL  
MITIGATION MP12  
PROJECT NO. 36C-01-10

Scale: NONE MARCH 2020

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36C-01-10	2020	4	35

GRADING NOTES

1. All grading work shall be done in accordance with State of Hawaii Standard Specifications for Road and Bridge Construction, 2005.
2. No Contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
3. The Contractor, at the Contractor's own expense, shall keep the project area and surrounding area free from dust nuisance.
4. The underground pipes, cables or ductlines known to exist by the Design Engineer from his/her search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.
5. Prevent damage to the cut face of an excavation or the sloped surfaces of a fill. Furthermore, sediment-laden runoff shall not leave the site.
6. All slopes and exposed areas shall be sodded, planted, or hydromulched, as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted.
7. Fills on slopes steeper than 5:1 shall be keyed.
8. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice and acceptance by the Engineer, provided such grading work is also in conformance with the community noise control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 46, "Community Noise Control."
9. The limits of the area to be graded shall be flagged before the commencement of the grading work.
10. All grading operations shall be performed in conformance with the applicable provisions of the water quality and water pollution control standards contained in Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards," and Title 11, Chapter 55, "Water Pollution Control" and if applicable, the NPDES permit for the project.
11. The measures to control erosion and other pollutants shall be in place before any earth-moving phase of the grading is initiated.
12. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.
13. Temporary erosion control procedures shall be submitted to the Engineer for approval prior to application for permit.
14. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable State and Federal requirements.
15. In the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify Maui District office (873-3538), the Maui Police Department, and the State Department of Land and Natural Resources-Historic Preservation Division (808-243-1285).
16. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. All costs incurred shall be billed to the Contractor. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.
17. Place topsoil prior to placement of erosion control matting, in accordance with the requirements of Section 617-Planting Soil, and Section 716-Geotextiles. This work shall be considered incidental to various contract items.
18. Any loose/soft soils encountered shall be removed and backfilled with proper compacted fill prior to mass grading.

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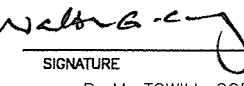
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R. M. TOWILL CORPORATION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GRADING NOTES

HANA HIGHWAY ROCKFALL  
MITIGATION MP12  
PROJECT NO. 36C-01-10

Scale: NONE MARCH 2020



NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY

1.

Construction and restoration of all existing highway facilities within the State's Right-of-Way shall be done in accordance with all applicable sections of the current Standard Specifications for Road and Bridge Construction, 2005, and the Specifications for Installation of Miscellaneous Improvements within State Highways, of the State Highways Division.
2.

Work may be performed only between the hours of 8:00 A.M. and 4:00 P.M., Monday through Friday, except holidays, unless otherwise permitted by the District Engineer.  
  
During work hours, only one lane of traffic shall be closed, unless otherwise approved in writing by the District Engineer.
3.

The Contractor shall provide, install, and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities, and shall take all necessary precautions for the protection, convenience, and safety of public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", Adopted by the Director of Transportation, and the current U.S. Federal Highways Administration "Manual on Uniform Traffic Control Devices for Streets and Highways, Part IV – Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations".
4.

No material and/or equipment shall be stockpiled or otherwise stored within the highway Right-of-Way, except as approved by the District Engineer. Contractor shall obtain Occupancy & Use Permit for this purpose.
5.

Compaction tests shall be taken in accordance with the specifications for installation of miscellaneous improvements within State Highways, as Follows:

A.

Subbase:

One (1) Compaction Test per Lift per 200 Lineal Feet of Roadway.

B.

Base Course:

One (1) Compaction Test per Lift per 200 Lineal Feet of Roadway.

C.

One (1) Compaction Test per Lift per 300 Lineal Feet of Trench.

D.

A Copy of the Test Results shall be Submitted to the District Engineer.
6.

Prior to commencing trench excavation work, the Contractor shall take a profile along the centerline of the proposed utility trench. This information shall be used in the verification of restoring the roadway to its original condition. A copy of the profile shall be submitted to the District Engineer.
7.

The Contractor shall provide an adequate and safe non-skid bridging material, including shoring, over trenches in pavement areas. The bridging shall be able to support all types of vehicular traffic. Metal trench plates are not allowed in areas where the speed limit exceeds 35 mph.
8.

Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or ductline.
9.

Existing drainage systems shall be functional at all times.
10.

The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at the Contractor's expense, to the satisfaction of the District Engineer.
11.

Approval of permit construction plans shall be valid for a period of one (1) year from the date of notification of approval to the applicant. In the event construction does not commence within this one-year period, the applicant will be required to resubmit the construction plans for the Division's review and reapproval.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36C-01-10	2020	5	35

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY CONTINUED:

12.

All regulatory, guide, and construction signs and barricades shall have a high-intensity reflective background.
13.

The Contractor shall inform the State Highways' District Office (873-3538) at least two (2) days prior to closing any lanes.
14.

Driveways shall be kept open unless the owners of the properties using these Rights-of-Way are otherwise provided for satisfactorily.
15.

Where pedestrian walkways exist they shall be maintained in a safe and passable condition, or other facilities for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided. Passage shall be ADA compliant.
16.

The Contractor shall reference, to the satisfaction of the District Engineer, all existing traffic signs, posts, and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts, and pavement markings disturbed by his activities, at the Contractor's expense, unless directed otherwise by the District Engineer or his representative.
17.

The Contractor shall exercise care when performing work in or adjacent to the State Highway Right-of-Way. Damages to the existing facilities shall be immediately reported to the respective utility companies, and/or County or State Agencies. The repair work shall be done at the Contractor's expense.
18.

Traffic signals shall be kept operational during construction, and if deemed necessary by the District Engineer or his representative, a temporary vehicle detection device shall be installed. All work shall be done in accordance to the requirements of the State of Hawaii Department of Transportation, and paid for by the Contractor.
19.

The permit to perform work upon State Highways may be revoked because of default in any of the following, but not limited to, conditions:

A.

Work performed before or after permitted hours.

B.

Failure to maintain roadway surfaces in a smooth and safe condition.

C.

Failure to clean up construction debris generated from project work.

D.

Failure to provide proper traffic control.

E.

Failure to replace damaged pavement markings and signs.
20.

No specific sequence of construction is required. However, the Engineer will not allow construction at more than one site at a time.

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SIGNATURE

4/30/22

R. M. TOWILL CORPORATION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

NOTES FOR CONSTRUCTION

WITHIN STATE RIGHT-OF-WAY

HANA HIGHWAY ROCKFALL

MITIGATION MP12

PROJECT NO. 36C-01-10

Scale: NONE

MARCH 2020

WATER POLLUTION AND EROSION CONTROL NOTES

- A. GENERAL:
- See Special Provisions Section 209 – Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
  - Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
  - Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
  - The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
  - The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
  - If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
  - Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>.

B. WASTE DISPOSAL:

- Waste Materials: Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.
- Hazardous Waste: Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- Sanitary Waste: Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.
- EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:
  - For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
  - For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.
  - Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.
  - Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.
  - Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
  - Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
  - Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.
  - Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold-planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. Cover dump trucks hauling material from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.
  - Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
  - Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
  - Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

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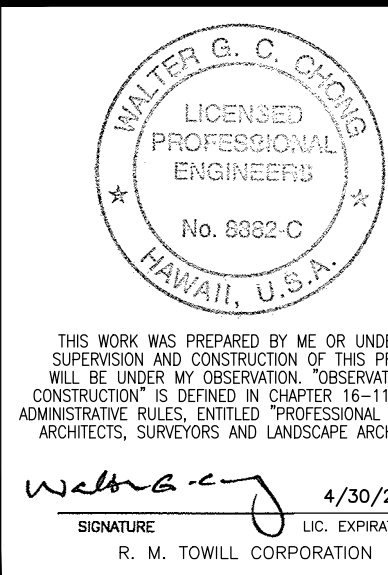
WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.
- For projects with an NPDES Permit for Construction Activities, immediately initiate stabilizing exposed soil areas upon completion of earth-disturbing activities for areas where earth-disturbing activities have permanently or temporarily ceased. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future. For construction areas discharging into waters not impaired for nutrients sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities. For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities. Classification of water at the discharge point may be found in the SWPPP.
- For projects without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

- Materials Pollution Prevention Plan
  - Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.

Concrete	Cleaning Solvents
Detergents	Wood
Paints (enamel and latex)	Masonry Block
Metal Studs	Herbicides and Pesticides
Tar	Curing Compounds
Fertilizers	Adhesives
Petroleum Based Products	
  - Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.
  - Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
  - Keep products in their original containers with the original manufacturer's label.



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**WATER POLLUTION &  
EROSION CONTROL NOTES**

HANA HIGHWAY ROCKFALL  
MITIGATION MP12  
PROJECT NO. 36C-01-10

Scale: NONE MARCH 2020

SHEET No. G-6 OF 35 SHEETS



WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- e. Do not mix substances with one another unless recommended by the manufacturer.
  - f. Whenever possible, use a product up completely before disposing of the container.
  - g. Follow manufacturer’s recommendations for proper use and disposal.
  - h. Conduct a daily inspection to ensure proper use and disposal of materials onsite.
2. Hazardous Material Pollution Prevention Plan
- a. Keep products in original containers unless they are not resealable.
  - b. Retain original labels and Safety Data Sheets (SDS), formerly Material Safety Data Sheets (MSDS).
  - c. Dispose of surplus products according to manufacturers’ instructions and local and State regulations.
3. Onsite and Offsite Product Specific Plan
- The following product specific practices shall be followed onsite:
- a. Petroleum Based Products: Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer’s recommendation.
  - b. Fertilizers: Apply fertilizers used only in the minimum amounts recommended by the manufacturer and federal, state, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an area where fertilizer will not come into contact with precipitation o stormwater. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.
  - c. Paints: Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacturers’ instructions and State and local regulations.
  - d. Concrete Trucks: Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.
4. Spill Control Plan
- a. Post a spill prevention plan to include measures to prevent and clean up each spill.
  - b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other accessible location acceptable to the Engineer and in the office trailer onsite.
  - c. Clearly post manufacturers’ recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.
  - e. Clean up all spills immediately after discovery.
  - f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424–8802, the Clean Water Branch during regular business hours at 586–4309, and the Hawaii State Hospital Operator at 247–2191 and the Clean Water Branch (DOH–CWB) via email at [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov) during non–business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. The Engineer will provide this information to the DOH–CWB. The Engineer will provide information to the NRC if requested.
- E. PERMIT REQUIREMENTS:
1. A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities of one acre or more of disturbed area is required for this project. If the Contractor requires extra land disturbance, including staging and storage areas, that is not covered by the NPDES Permit obtained by the State, the Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit to cover this additional disturbed area. See Hawaii Administrative Rules Chapter 11–55, Appendix C for definition of land disturbance. The Contractor’s attention is directed to the applicable NPDES Permit documents on the bid package compact disc.
  2. Comply with all applicable State and Federal Permit conditions. Permits may include, but not limited to the following:
    - a. NPDES Permit for Construction Activities
    - b. NPDES Permit for Construction Dewatering
    - c. NPDES Permit for Hydrotesting Waters
    - d. Water Quality Certification
    - e. Stream Channel Alteration Permit
    - f. Section 404 Army Corps of Engineer Permit

F. SITE–SPECIFIC BMP REQUIREMENTS:

Each BMP below is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at <http://stormwaterhawaii.com/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing and Irrigation Water.

The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants are included in Section 209 of the Special Provisions under Appendix A.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36C-01-10	2020	7	35

WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- F. (Continued)
- Follow the requirements below:
1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC–2).
  2. Contain on–site runoff using Perimeter Sediment Controls
    - a. SC–1 Silt Fence
    - b. SC–5 Vegetated Filter Strips and Buffers
    - c. SC–8 Compost Filter Berm
    - d. SC–13 Sandbag Barrier
    - e. SC–14 Brush or Rock Filter
  3. Control offsite runoff from entering construction area
    - a. EC–8 Run–On Diversion
    - b. SC–6 Earth Dike
    - c. SC–7 Temporary Drains and Swales
  4. Incorporate applicable Site Management BMP
    - a. SM–1 Employee Training
    - b. SM–2 Material Delivery and Storage
    - c. SM–3 Material Use
    - d. SM–4 Protection of Stockpiles
    - e. SM–6 Solid Waste Management
    - f. SM–7 Sanitary/Septic Waste Management
    - g. SM–9 Hazardous Waste Management
    - h. SM–10 Spill Prevention and Control
    - i. SM–11 Vehicle and Equipment Cleaning
    - j. SM–12 Vehicle and Equipment Maintenance
    - k. SM–13 Vehicle and Equipment Refueling
    - l. SM–14 Scheduling
    - m. SM–15 Location of Potential Sources of Sediment
    - n. SM–16 Preservation of Existing Vegetation
    - o. SM–18 Dust Control
  5. Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC–2) for all areas which exit onto a paved street. Restrict vehicle access to these points.
  6. Manage Concrete Waste including installing a Concrete Washout Area (SM–5) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS–12 Concrete Curing).
  7. Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.

NPDES NOTES

1. Contractor shall obtain NPDES permit for off–site staging area to assemble post–tensioned sections.

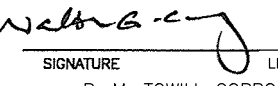
WATER G. C. CHONG

LICENSED PROFESSIONAL ENGINEERS

No. 6882-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. OBSERVATION OF CONSTRUCTION IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

SIGNATURE: 

R. M. TOWILL CORPORATION

4/30/22

LIC. EXPIRATION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

WATER POLLUTION & EROSION CONTROL NOTES

HANA HIGHWAY ROCKFALL MITIGATION MP12

PROJECT NO. 36C-01-10

Scale: NONE

MARCH 2020

SHEET No. G-6 OF 35 SHEETS

7

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	
No.		